WHAT IS CLAIMED IS:

1. A thin film semiconductor apparatus comprising thin film transistors integrated on a substrate, and a wiring connecting said thin film transistors,

each of said thin film transistors comprising a channel which has a predetermined threshold voltage and on-off operates depending on a gate voltage applied through a wiring,

at least a part of said thin film transistors comprising a semiconductor thin film constituting said channel, and a first gate electrode and a second gate electrode, which are disposed on a surface and the other surface of said semiconductor thin film sandwiching an insulating film,

wherein said first gate electrode and said second gate electrode receive a first gate voltage and a second gate voltage, respectively, through wirings which are separately provided,

wherein said first gate electrode on-off controls said channel depending on said first gate voltage, and

wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage to adjust the on-off operation of said thin film transistors.

2. The semiconductor apparatus according to claim 1, wherein said semiconductor thin film constituting said channel is comprised of polycrystalline silicon which does not contain an impurity effectively affecting the formation of a depletion layer, and has a thickness of

100 nm or less.

3. The semiconductor apparatus according to claim 1, wherein said semiconductor thin film constituting said channel is comprised of polycrystalline silicon which contains an impurity effectively affecting the formation of a depletion layer, and has a thickness two times or less the maximum of the thickness of said depletion layer.

4. The semiconductor apparatus according to claim 1, wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage applied at least when said thin film transistors off-operate, to thereby decrease a current flowing through said channel when said thin film transistors off-operate, as compared to a current flowing through said channel when said second gate voltage is not applied.

5. The semiconductor apparatus according to claim 1, wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage applied at least when said thin film transistors on-operate, to thereby increase a current flowing through said channel when said thin film transistors on-operate, as compared to a current flowing through said channel when said second gate voltage is not applied.

6. A liquid crystal display comprising a pair of substrates disposed having a predetermined gap, and a liquid crystal kept in said gap,

one of said substrates containing thereon a display

portion in which a pixel electrode and a thin film transistor for driving said pixel electrode are integrated, and a peripheral circuit portion in which thin film transistors are integrated,

the other of said substrates containing thereon an opposite electrode which faces said pixel electrode,

each of said thin film transistors comprising a channel which has a predetermined threshold voltage and on-off operates depending on a gate voltage applied through a wiring, at least a part of said thin film transistors comprising a semiconductor thin film constituting said channel, and a first gate electrode and a second gate electrode, which are disposed on a surface and the other surface of said semiconductor thin film sandwiching an insulating film,

wherein said first gate electrode and said second gate electrode receive a first gate voltage and a second gate voltage, respectively, through wirings which are separately provided,

wherein said first gate electrode on-off controls said channel depending on said first gate voltage, and wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage to adjust the on-off operation of said thin film transistors.

7. The liquid crystal display according to claim 6, wherein said semiconductor thin film constituting said channel is comprised of polycrystalline silicon which does not contain an impurity effectively affecting the formation of a depletion layer, and has a thickness of

100 nm or less.

8. The liquid crystal display according to claim 7, wherein, in all of the thin film transistors contained in said display portion and said circuit portion, said semiconductor thin film constituting said channel does not contain an impurity effectively affecting the formation of a depletion layer.

9. The liquid crystal display according to claim 6, wherein said semiconductor thin film constituting said channel is comprised of polycrystalline silicon which contains an impurity effectively affecting the formation of a depletion layer, and has a thickness two times or less the maximum of the thickness of said depletion layer.

10. The liquid crystal display according to claim 9, wherein, in all of the thin film transistors contained in said display portion and said circuit portion, said semiconductor thin film constituting said channel contains impurity of the same conductive type effectively affecting the formation of a depletion layer.

11. The liquid crystal display according to claim 6, wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage applied at least when said thin film transistors off-operate, to thereby decrease a current flowing through said channel when said thin film transistors off-operate, as compared to a current flowing through said channel when said second gate voltage is not applied.

12. The liquid crystal display according to claim 6, wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage applied at least when said thin film transistors on-operate, to thereby increase a current flowing through said channel when said thin film transistors on-operate, as compared to a current flowing through said channel when said second gate voltage is not applied.

13. An electroluminescence display comprising a substrate having thereon a display portion in which an electroluminescence device and a thin film transistor for driving said electroluminescence device are integrated, and a peripheral circuit portion in which thin film transistors are integrated,

each of said thin film transistors comprising a channel which has a predetermined threshold voltage and on-off operates depending on a gate voltage applied through a wiring, at least a part of said thin film transistors comprising a semiconductor thin film constituting said channel, and a first gate electrode and a second gate electrode, which are disposed on a surface and a back surface of said semiconductor thin film through an insulating film,

wherein said first gate electrode and said second gate electrode receive a first gate voltage and a second gate voltage, respectively, through wirings which are separately provided,

wherein said first gate electrode on-off controls said channel depending on said first gate voltage, and

wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage to adjust the on-off operation of said thin film transistors.

14. The electroluminescence display according to claim 13, wherein said semiconductor thin film constituting said channel is comprised of polycrystalline silicon which does not contain an impurity effectively affecting the formation of a depletion layer, and has a thickness of 100 nm or less.

15. The electroluminescence display according to claim 14, wherein, in all of the thin film transistors contained in said display portion and said circuit portion, said semiconductor thin film constituting said channel does not contain an impurity effectively affecting the formation of a depletion layer.

16. The electroluminescence display according to claim 13, wherein said semiconductor thin film constituting said channel is comprised of polycrystalline silicon which contains an impurity effectively affecting the formation of a depletion layer, and has a thickness two times or less the maximum of the thickness of said depletion layer.

17. The electroluminescence display according to claim 16, wherein, in all of the thin film transistors contained in said display portion and said circuit portion, said semiconductor thin film constituting said

channel contains impurity of the same conductive type effectively affecting the formation of a depletion layer.

18. The electroluminescence display according to claim 13, wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage applied at least when said thin film transistors off-operate, to thereby decrease a current flowing through said channel when said thin film transistors off-operate, as compared to a current flowing through said channel when said second gate voltage is not applied.

19. The electroluminescence display according to claim 13, wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage applied at least when said thin film transistors on-operate, to thereby increase a current flowing through said channel when said thin film transistors on-operate, as compared to a current flowing through said channel when said second gate voltage is not applied.

20. A method for driving a thin film semiconductor apparatus which comprises thin film transistors integrated on a substrate, and a wiring connecting said thin film transistors, each of said thin film transistors comprising a channel which has a predetermined threshold voltage and on-off operates depending on a gate voltage applied through a wiring, at least a part of said thin film transistors comprising a semiconductor thin film constituting said channel, and a first gate electrode and a second gate electrode, which are disposed on a surface

and the other surface of said semiconductor thin film sandwiching an insulating film,

wherein said first gate electrode and said second gate electrode receive a first gate voltage and a second gate voltage, respectively, through wirings which are separately provided,

wherein said first gate electrode on-off controls said channel depending on said first gate voltage, and wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage to adjust the on-off operation of said thin film transistors.

21. The method according to claim 20, wherein said semiconductor thin film constituting said channel is comprised of polycrystalline silicon which does not contain an impurity effectively affecting the formation of a depletion layer, and has a thickness of 100 nm or less.

22. The method according to claim 20, wherein said semiconductor thin film constituting said channel is comprised of polycrystalline silicon which contains an impurity effectively affecting the formation of a depletion layer, and has a thickness two times or less the maximum of the thickness of said depletion layer.

23. The method according to claim 20, wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage applied at least when said thin film transistors off-operate, to

thereby decrease a current flowing through said channel when said thin film transistors off-operate, as compared to a current flowing through said channel when said second gate voltage is not applied.

24. The method according to claim 20, wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage applied at least when said thin film transistors on-operate, to thereby increase a current flowing through said channel when said thin film transistors on-operate, as compared to a current flowing through said channel when said second gate voltage is not applied.

25. A method for driving a liquid crystal display which comprises a pair of substrates disposed together having a predetermined gap, and a liquid crystal kept in said gap,

one of said substrates containing thereon a display portion in which a pixel electrode and a thin film transistor for driving said pixel electrode are integrated, and a peripheral circuit portion in which thin film transistors are integrated,

the other of said substrates containing thereon an opposite electrode which faces said pixel electrode,

each of said thin film transistors comprising a channel which has a predetermined threshold voltage and on-off operates depending on a gate voltage applied through a wiring, at least a part of said thin film transistors comprising a semiconductor thin film constituting said channel, and a first gate electrode and a second gate electrode, which are disposed on a surface

and the other surface of said semiconductor thin film through an insulating film,

wherein said first gate electrode and said second gate electrode receive a first gate voltage and a second gate voltage, respectively, through wirings which are separately provided,

wherein said first gate electrode on-off controls said channel depending on said first gate voltage, and wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage to adjust the on-off operation of said thin film transistors.

26. The method according to claim 25, wherein said semiconductor thin film constituting said channel is comprised of polycrystalline silicon which does not contain an impurity effectively affecting the formation of a depletion layer, and has a thickness of 100 nm or less.

27. The method according to claim 26, wherein, in all of the thin film transistors contained in said display portion and said circuit portion, said semiconductor thin film constituting said channel does not contain an impurity effectively affecting the formation of a depletion layer.

28. The method according to claim 25, wherein said semiconductor thin film constituting said channel is comprised of polycrystalline silicon which contains an impurity effectively affecting the formation of a

depletion layer, and has a thickness two times or less the maximum of the thickness of said depletion layer.

29. The method according to claim 28, wherein, in all of the thin film transistors contained in said display portion and said circuit portion, said semiconductor thin film constituting said channel contains impurity of the same conductive type effectively affecting the formation of a depletion layer.

30. The method according to claim 25, wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage applied at least when said thin film transistors off-operate, to thereby decrease a current flowing through said channel when said thin film transistors off-operate, as compared to a current flowing through said channel when said second gate voltage is not applied.

31. The method according to claim 25, wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage applied at least when said thin film transistors on-operate, to thereby increase a current flowing through said channel when said thin film transistors on-operate, as compared to a current flowing through said channel when said second gate voltage is not applied.

32. A method for driving an electroluminescence display which comprises a substrate having thereon a display portion in which an electroluminescence device and a thin

film transistor for driving said electroluminescence device are integrated, and a peripheral circuit portion in which thin film transistors are integrated,

each of said thin film transistors comprising a channel which has a predetermined threshold voltage and on-off operates depending on a gate voltage applied through a wiring, at least a part of said thin film transistors comprising a semiconductor thin film constituting said channel, and a first gate electrode and a second gate electrode, which are disposed on a surface and the other surface of said semiconductor thin film having an insulating film in between,

wherein said first gate electrode and said second gate electrode receive a first gate voltage and a second gate voltage, respectively, through wirings which are separately provided,

wherein said first gate electrode on-off controls said channel depending on said first gate voltage, and wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage to adjust the on-off operation of said thin film transistors.

33. The method according to claim 32, wherein said semiconductor thin film constituting said channel is comprised of polycrystalline silicon which does not contain an impurity effectively affecting the formation of a depletion layer, and has a thickness of 100 nm or less.

34. The method according to claim 33, wherein, in all of

the thin film transistors contained in said display portion and said circuit portion, said semiconductor thin film constituting said channel does not contain an impurity effectively affecting the formation of a depletion layer.

35. The method according to claim 32, wherein said semiconductor thin film constituting said channel is comprised of polycrystalline silicon which contains an impurity effectively affecting the formation of a depletion layer, and has a thickness two times or less the maximum of the thickness of said depletion layer.

36. The method according to claim 35, wherein, in all of the thin film transistors contained in said display portion and said circuit portion, said semiconductor thin film constituting said channel contains impurity of the same conductive type effectively affecting the formation of a depletion layer.

37. The method according to claim 32, wherein said second gate electrode actively controls said threshold voltage depending on said second gate voltage applied at least when said thin film transistors off-operate, to thereby decrease a current flowing through said channel when said thin film transistors off-operate, as compared to a current flowing through said channel when said second gate voltage is not applied.

38. The method according to claim 32, wherein said second gate electrode actively controls said threshold

voltage depending on said second gate voltage applied at least when said thin film transistors on-operate, to thereby increase a current flowing through said channel when said thin film transistors on-operate, as compared to a current flowing through said channel when said second gate voltage is not applied.